CARISMAND
Culture And RISk management in
Man-made And Natural Disasters

Culture and disaster risk management - Citizens' reactions and opinions during Citizen Summit in Rome, Italy.

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1. Introduction

The analyses and results in this document are based on the data collected during the third Citizen Summit held in Rome/Italy on June 7th 2017. As the previous two Citizen Summits held in Romania and Malta, this Citizen Summit was designed as a one-day event combining public information with feedback gathering through different methods of data collection. In the morning session, 42[1] questions with pre-defined answer options were posed to the audience and collected via an audience response system. In the afternoon session, small moderated group discussions of approximately 1.5 hours duration were held, which followed a detailed set of questions and discussion guidelines, including a short association exercise. All questions and discussions aimed to explore cultural factors in citizens' attitudes, feelings, and perceptions towards disaster risks, as well as their identification in relation to disaster preparation, response, and recovery. In coordination with the Work Package 11 briefs, the definition and design of the questions was based on:

- Results from Citizen Summits 1 and 2, complementing in particular the data related to risk perception with the aim to build up a comprehensive base for cultural comparison across all six summits;
- Results from Stakeholder Assemblies 1 and 2, in particular regarding the identification of non-professional ("cultural") leaders in disaster situations, motivators for improving disaster preparedness, and the role of trust/distrust;
- Results from Work Package 3, aiming to complement and increase knowledge about citizens' uptake of mobile phone apps and interest in usage of different features, also in contrast to social media use;
- Results from Work Package 4, in particular regarding recent research findings in the relationships between perceived disaster preparedness and actual disaster preparedness, and in the ambivalent relationships between trust in authorities and citizens' personal preparedness;
- Results from Work Package 7, aiming to complement the research regarding citizen empowerment by exploring trust as a bi-directional relationship between citizens and disaster managers; and
- Results from Work Package 8, taking into account the role of media in all phases of disaster management.

For a detailed overview of all questions asked and topics discussed please see Appendix A.

Overall, 105 citizens participated in the Italy event. The total sample shows a relatively even gender and age distribution, which is unsurprising given the target quotas[2] that were requested from the

[1] 40 questions; plus 2 initial test questions to ensure that the ppvote radio signal between the participants' keypads and the central software unit is working.

[2] Target gender split: 50% female / 50% male; target age split: 20% 18-24 years, 40% 25-44 years, 40% 45+ years; total target of 100-110 participants per Summit.

recruiting local market research agency. The slightly lower number of senior citizens aged 65 and above was expected and reflects mobility issues.

Table 1

Distribution by age and gender

Total	Gender			Age Groups						
	Female	Male	No answer[3]	18-24	25-34	35-44	45-54	55-64	65+	No answer
105	50	53	2	16	19	24	18	16	11	1

Participants were asked about three key aspects of experience of disasters and disaster risk perception that could potentially have an impact on how other questions were answered[4]. Almost three out of four respondents (72.1%) indicated that they, or a close friend or family member, have experienced a disaster, but only one out of eight (12.6%) felt that they are currently living in an area that is specifically prone to disasters, and 26.7% answered that they know other people in the area where they live who they think are particularly vulnerable or exposed to disasters. Female respondents felt more often than male respondents that they live in a disaster area; other slight gender differences (as well as age-related differences) were found to be not statistically significant (p>=.05).

Table 2

Disaster risk perception I

Questions		Answer=YES		
		Total	Female	Male
Q5	Experience of disasters	72.1%	68.0%	75.0%
Q6	Feel that living in a disaster area	12.6%	21.2%	4.1%
Q7	Know of vulnerable groups particularly exposed to disasters	26.7%	25.5%	28.8%

Q5: Have you, or a close friend or family member, ever experienced a disaster?
Q6: Do you feel you are living in an area that is specifically prone to disasters?
Q7: Do you know of any other people in your area where you live who you think are particularly vulnerable or exposed to disaster?

This report presents the results of the third CARISMAND Citizen Summit and is structured in five main sections: After this introduction, the second section will provide an overview of the different methods applied. The third section, based on the quantitative data collected via the audience response system, presents the results from questions on general disaster risk perceptions, disaster preparedness, behaviours in disaster situations with a particular focus on the use of mobile phone apps and social media, and trust between citizens and different authorities including trust in different social media sources. In the fourth section, based on the qualitative data collected in the ten discussion groups, the analyses will take up the topics introduced in the previous section, focussing first on the role of citizens' trust in different entities, in particular towards different authorities, "non-professional" leaders, and the media. Furthermore, this section will report on the participating citizens' attitudes towards improving their disaster preparedness through different measures. In all topics, the analyses

[3] In each question, the participating citizens were given the answer option "choose not to say".
[4]These questions formed part of the recruitment criteria to ensure a good mix of levels of experience for the discussions about disasters.

seek to identify different cultural aspects which may play a role in an improved disaster preparedness and response. The final section compares and contrasts the results from sections 3 and 4, draws some tentative conclusions, and identifies topics and issues that should feed into the last round of events in 2018, i.e. the 3rd Stakeholder Assembly, as well as the 5th and 6th Citizen Summits.

2. Methodology

Participants for the Citizen Summit were recruited via an Italian market research agency[5], following a recruitment questionnaire (see Appendix B), which aimed at achieving an even gender and age distribution, as well as a minimum proportion of participants fulfilling certain criteria such as having experience of disasters and using social media. All documents, i.e. recruitment questionnaire, consent form, PowerPoint presentations, and focus group discussion guidelines were translated into Italian. Accordingly, the Citizen Summit presentations, as well as the group discussions were held in Italian[6], aiming to avoid any language/education-related access restrictions for participation and allowing citizens to respond intuitively and discuss freely in their native tongue. For this purpose, professional local moderators were contracted.

Overall,42 quantitative questions were posed during the presentations to the general audience, 40 before the group discussions, and 2 after. The participants' immediate responses were captured via an audience response system[7], which allowed immediate feedback of the results to the participants via PowerPoint. After the event, all data were exported into a database for further analyses. All data in this database are fully anonymous. Although keypad ID's were assigned to participants during the registration process to enable retrieval of the devices at the end of the event, WP5 team members were not involved in this process and had no access to the registration documents. Additionally, after data export, random new ID's were assigned to all data sets. All analyses were conducted with SPSS Version 24.0 and significance tests were run for all results.

After the presentations and questions, the audience was split up into smaller groups of 9-11 participants with an even gender split and similar ages. This division into age groups aimed to allow participants to discuss amongst peers with similar life-experience. All group discussions were audio-recorded, fully transcribed, and translated into English. In this process, all participant names and personal identifiers were removed to ensure the participants' anonymity. The resulting English transcripts were coded following a preliminary coding framework which allowed an initial structuring of the vast amount of collected data. Then, all transcripts were re-coded theme by theme, summarising specific processes and practices or constructions and interpretations. This process of re-coding also initialised a critical restructuring and rethinking of the codes applied first, and allowed a more focussed data analysis.

[5]RFR (Rome Field and Research) International.
[6]Some presentations were held in English but with simultaneous translation into Italian.
[7] Clik-a-pad system with ppvote software; for further information see http://www.clikapad.com.

3. Quantitative Data Analysis

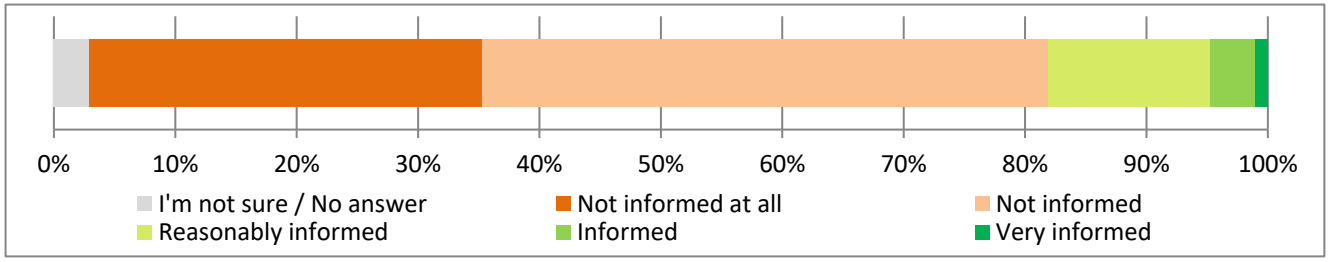
3.1. Disaster Preparedness

The questions in this section build directly upon the design and results from the first two Citizen Summits in 2016, as well as results from the Work Package 4 literature review which points particularly at recent research findings regarding the ambivalent relationships between perceived disaster preparedness and actual preparedness[8]. In detail, Q10 introduces the topic of disaster preparedness through asking for awareness of disaster-related behaviours; Q11, Q14, and Q15 measure citizens' perceived preparedness levels and preparedness intentions, with Q12 and Q13 operationalising the results from Q11 for guidance to disaster managers. Regarding the latter, a need of specific training activities for citizens rather than the mere provision of information was specifically pointed out by the practitioners who participated in the 2nd Stakeholder Assembly.

Generally, participants of the Italian Citizen Summit expressed a strong lack of knowledge about what to do in case of a disaster, with 79% of respondents feeling not informed or not informed at all.

Figure 1

Feeling informed about what to do in case of a disaster

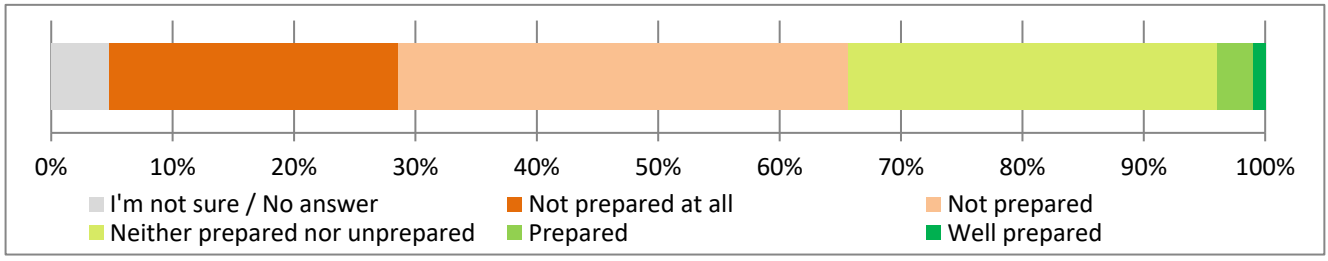


Q10- How informed do you feel by the authorities (for example Civil Protection, local police, emergency services) of what you have to do in case of a disaster?

At the same time, three out of five participants expressed their feelings of not being prepared or not being prepared at all, whereas only a very small minority (4%) feel prepared or well prepared and there is only a weak[9] correlation (*R*=.262) between feeling informed and feeling prepared.

Figure 2

Feeling personally prepared for disasters



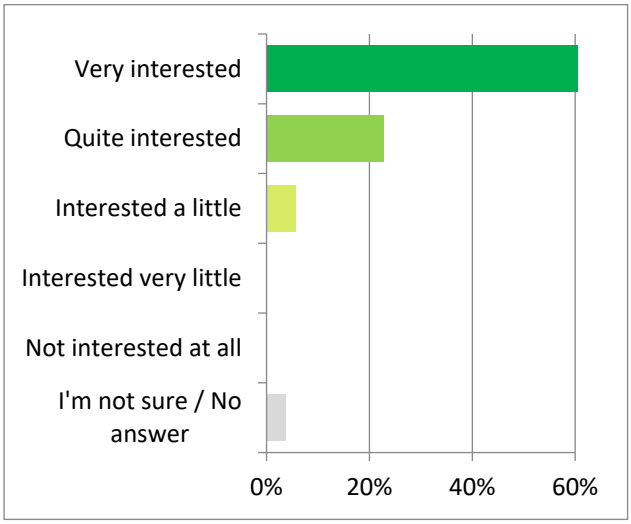
Q14 – How prepared do you personally feel for a disaster in your area?

[8] Joffe, H., Perez-Fuentes, G., Potts, H.W.W. & Rossetto, T. (2016) How to increase earthquake and home fire preparedness: the fix-it intervention. In: Natural Hazards, 84: 1943. doi:10.1007/s11069-016-2528-1.

[9] Generally, correlations between 0.2 and 0.3 are considered to be weak, between 0.3 and 0.5 to be moderate, and when higher 0.5 to be strong.

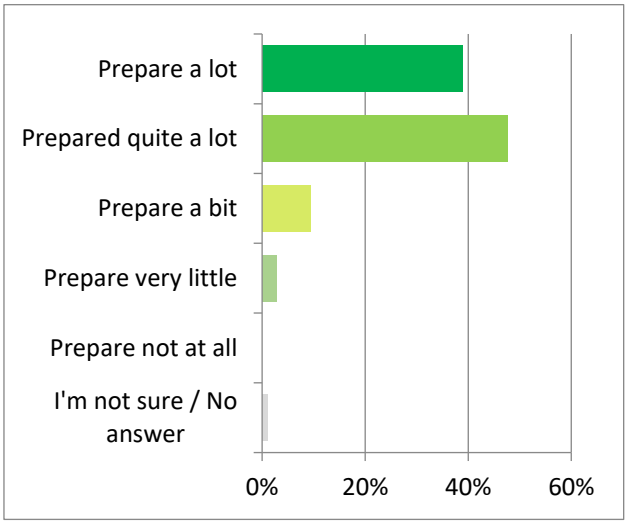
However, the participants expressed a considerable interest in having information about disaster preparedness, with 91% of participants indicating they were quite or very interested in information about disaster preparedness, and a similarly large majority (87%) indicated strong intentions to prepare for disasters (prepare quite a lot or a lot). Not surprisingly, there is a strong correlation (*R*=.617) between the respondents' interest in information and their intentions to prepare themselves.

Figure 3
Interest in information about disaster preparedness



Q11 – How much are you interested in information about disaster preparedness?

Figure 4
Intentions to prepare for disasters



Q15 – To what extent do you intend to prepare for disasters?

These somewhat abstract questions about the participants' interest and intentions were put more into context with further questioning, which explicitly asked for their expectations and participation in preparedness activities within specific time frames. Here, the answers provide a more detailed picture (see Tables 3 and 4 below): Not only 84% of them would like to **receive at least once per year information** about how to prepare themselves and their family/friends for a disaster, but also four out of five (80%) would like to **participate at least every 1-2 years in training activities** (e.g., emergency drills or workshops) that would help improve their and their family's/friends' safety in case of a disaster.

Table 3
Frequency of receiving information about disaster preparedness

Q12 How often would you like to receive information about how to prepare yourself and your family/friends for a disaster?	% of respondents
Never	0%
Only when there is an increased disaster risk	16%
Once per year	33%
Once every 6 months	29%
At least once every 3 months	22%
Not sure / no answer	0%

Table 4

Frequency of participating in training activities

Q13 How often would you like to participate in training activities, e.g. emergency drills or workshops, that will help improving your and your family's/friends' safety in case of a disaster?	% of respondents
Never	0%
Only when there is an increased disaster risk	10%
Every 3-5 years	10%
Every 1-2 years	33%
At least once per year	47%
Not sure / no answer	0%

There are no statistically significant differences between female and male responses, or responses between different age groups, in the results of Q12 and Q13. The same applies to all other questions regarding disaster preparedness (Q10, Q11, Q14, Q15), where no statistically significant differences could be found between gender or age groups, either.

3.2. Citizens' Feelings and Perceptions of Disaster Risk

As one of the overarching topics of the CARISMAND project, and progressively complementing the data collected during the previous Citizen Summits for a cultural comparison in the final synthesised report of this Work Package, participants were asked about their feelings and perceptions of disaster risk at different points during the event[10]. The results show that only very few of the participating Italian citizens perceive a high or very high risk of a disaster in their area (4%)[11], whereas almost half (42%) believe this risk to be low or very low. However, levels of worry/concern were higher, with more participants agreeing than disagreeing that they are worried or concerned about potential disasters in their area (see Table 5 below). Again, slight differences between male and female results were found to be not statistically significant (p>=.05), and there are also no statistically significant differences between age groups.

[10]In order to achieve adequate internal consistency but without using exactly the same wording, these questions are based on the 5-item measure developed by Kellens et al (2011) with a Cronbach's Alpha of 0.80 for the perception of flood risk, adapted to disasters in general (see Kellens, W., Zaalberg, R., Neutens, T., Vanneuville, W., & De Maeyer, P. (2011). An analysis of the public perception of flood risk on the Belgian coast. Risk analysis, 31 (7), 1055-1068).

[11] It has to be taken into account that almost all the participants in the Italian Citizen summit were Rome citizens. Rome is a low-risk area, at least considering natural hazards.

Table 5

Disaster risk perception II

Questions		Total		Female		Male	
		Mean	STD	Mean	STD	Mean	STD
Q8	Perceived disaster risk in my area (high/low)	2.51	0.759	2.64	0.764	2.41	0.753
Q9	Worried about disasters in my area	3.16	0.962	3.29	0.944	3.06	0.978
Q16	Concerned about disasters in my area	3.82	1.019	3.90	0.953	3.80	1.069

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Q8: How high or low do you think is the risk that a disaster occurs in the area where you live? (5-point Likert scale with 1=very low, 5=very high).

Q9: How much do agree, or disagree, with the following statement "I am worried about disasters in the area where I live." (5-point Likert scale with 1=totally disagree, 5=totally agree).

Q16: How much do agree, or disagree, with the following statement: "When I think of disasters in my area, I feel concerned." (5-point Likert scale with 1=totally disagree, 5=totally agree).

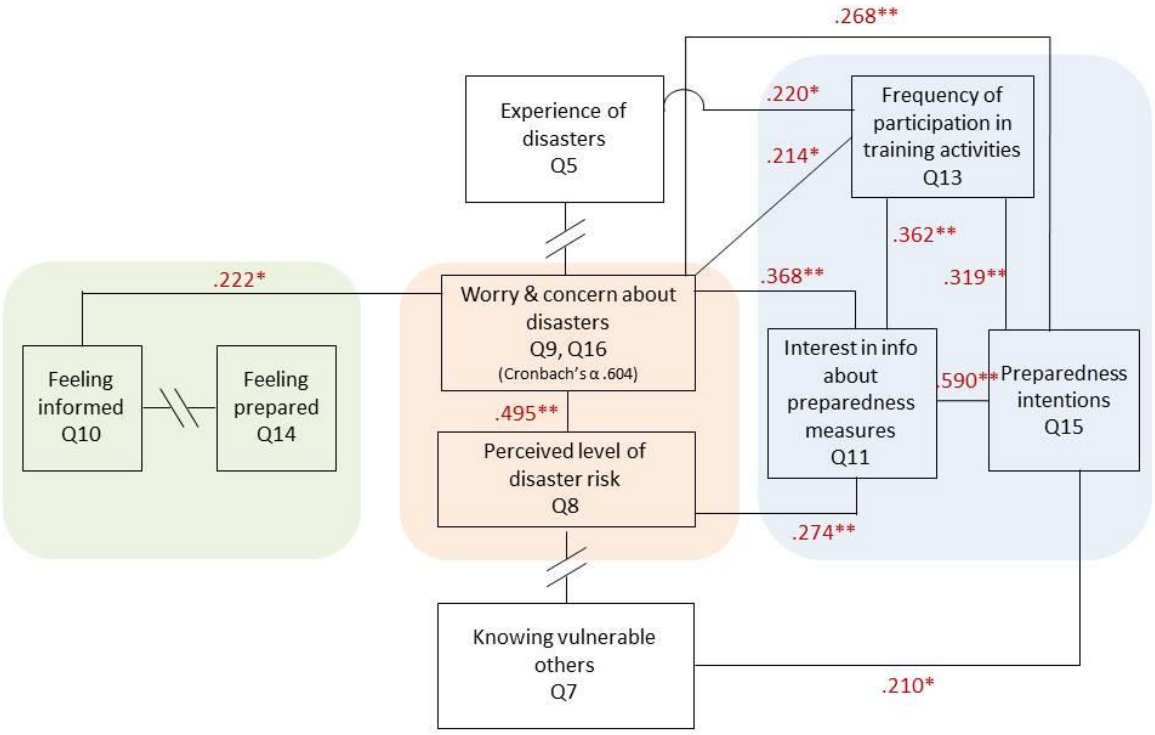
However, this perception of a rather low level of disaster risk appeared not to be connected with any previous experience of disasters – which may, potentially, be explained by the participating citizens' experience being based on experiences of close friends or family members[12] – and was only weakly related to any increased interest in receiving information about disaster preparedness measures (R_S=.274[13]). On the other hand, feelings of worry and concerns show stronger correlations with several attitudes and (intended) behaviours related to disaster preparedness, in particular interest in information about preparedness measures (R_S=.397) which, in turn, is strongly related to preparedness intentions (R_S=.590) and moderately to the participants' desired frequency of participation in disaster training activities (R_S=.362).

Accordingly, motivating for participation in disaster preparedness activities, through citizens' interest in preparedness-related information, may require appealing to Italian citizens' emotions rather than merely informing about disaster risks.

[12]Given that the proportion of participants answering Q5 (Have you, or a close friend or family member, ever experienced a disaster?) with 'yes' was rather high (72%) but the proportion of those answering Q6 (Do you feel you are living in an area that is specifically prone to disasters?) with 'yes' was rather low (4%).

[13]As some of the questions related to risk perception are yes-no questions, for this part of the analysis Spearman correlations (R_S) rather than Pearson's (R) have been used, given that the Spearman test has been found to be more meaningful for binary data. For a complete overview see Figure 5 below.

Figure 5
Spearman's Correlations



* Significance p<.05
**Significance p<.001

3.3. Usage of Social Media and Mobile Phone Apps

This set of questions was built upon the results from the first two Citizen Summits in 2016, the 2nd Stakeholder Assembly as well as the Work Package 3 Deliverables which show the uptake of social media by citizens in disaster situations to gather information, but also the increasing usage of specifically designed "disaster apps". Q19 to 21 and Q24 to 26 intentionally differentiate between social media and mobile phone apps, because there is yet little research which explores the different possible functions expected, or desired by citizens.

The results show that a large proportion of participants are likely or very likely to use both mobile phone apps and social media in disaster situations. For mobile phone apps, the likeliness of using them to warn or inform other app users is highest (77% likely or very likely), followed by the likeliness of usage for receiving messages/alerts (72%) and submitting information about disasters or disaster risks to authorities (71%). For the usage of social media in disaster situations, the picture is more differentiated, with the likeliness of using social media to inform oneself showing the highest results (81%) and usage to submit information to authorities the lowest. But with still 57% more than half of the participants indicated they would be likely or very likely to do so. Interesting, here, is that the likeliness to submit information to authorities in disaster situations appears to be higher when using mobile phone apps than when using social media.

Figure 6
Likeliness of mobile phone app usage in disaster situations

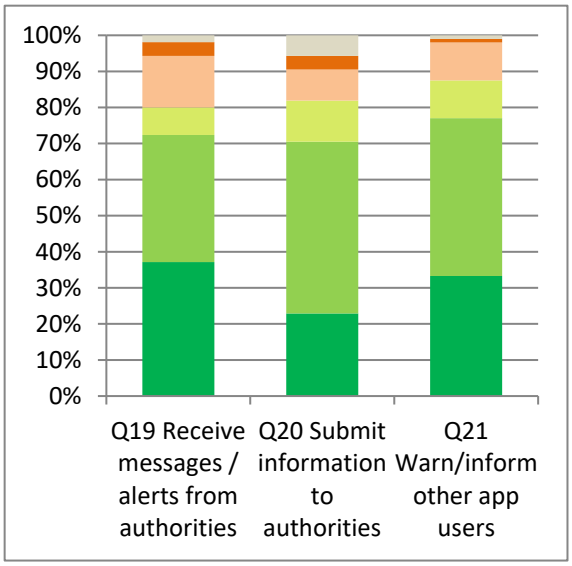
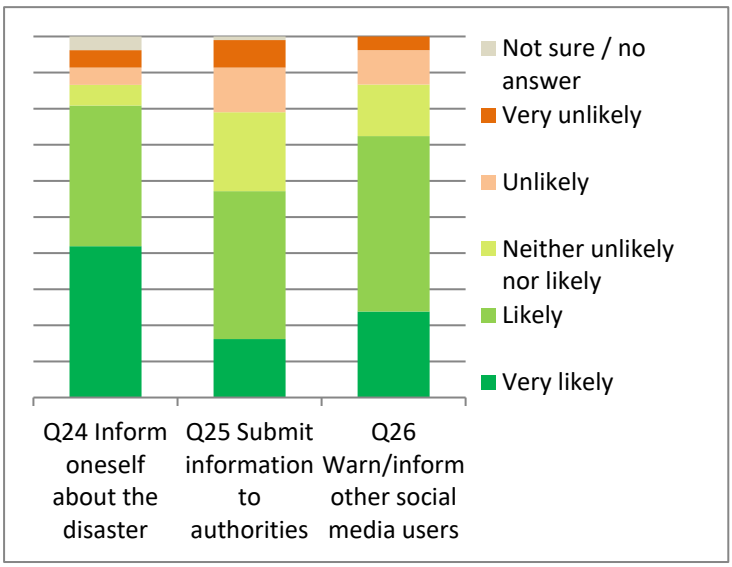


Figure 7
Likeliness of social media usage in disaster situations



In the case of a disaster, how likely are you to use a mobile phone app that is specifically made for disaster situations to…
Q19: receive alerts, warnings or emergency-related information from local authorities / emergency services.
Q20: submit information about disaster risks or disasters to local authorities / emergency services.
Q21: warn/inform other app users.
In the case of a disaster, how likely are you to use social media to…
Q24: inform yourself about the disaster.
Q25: submit information about disaster risks or disasters to local authorities / emergency services.
Q26: warn/inform other social media users.
(Answers for all questions provided on a 5-point Likert scale with 1=very unlikely and 5=very likely)
Note: Female respondents were found to be significantly more likely to use apps to warn other app users than male respondents; otherwise there are no statistically significant differences between female and male responses. Between age groups, respondents aged 65+ years were less likely than others to use apps to receive alerts (but still 46% were likely or very likely to do so). Otherwise, there were not statistically significant differences in the responses between age groups.

Regarding the relationships between the different types of usage (see Table 6 below), firstly, participants, who indicated that they are likely to use one function of such mobile phone apps (e.g. to receive alerts), were also likely to use any of the other functions (submit information to authorities, warn other app users). Amongst the different functions suggested in social media usage, these correlations are not so strong: Participants who responded that they are likely to use a social media site for informing themselves / receiving information, were also rather likely to warn or inform other social media users. However, the likeliness of submitting information to authorities via social media was only moderately related to the other functions. Accordingly, implementing mobile phone apps for crowd sourcing in disaster management may hold a higher potential for authorities to actually receive information from citizens than using social media for crowdsourcing.

Table 6

Pearson's Correlations: mobile phone apps and social media usage in disasters

	Q19 Mobile phone apps: receive information	Q20 Mobile phone apps: submit information	Q21 Mobile phone apps: warn other app users	Q24 Social media: receive information	Q25 Social media: submit information
Q20 Mobile phone apps: submit information	0.710				
Q21 Mobile phone apps: warn other app users	0.611	0.614			
Q24 Social media: receive information	-0.025	0.100	0.037		
Q25 Socal media: submit information	0.133	0.191	0.161	0.360	
Q26 Social media: warn other users	-0.004	0.074	0.228	0.502	0.517

Note: Significance p<.001 for all correlations except for those marked in green.

Furthermore, there are no (or very weak) correlations between the different types of usage of mobile phone apps and any of the three types of social media usage. Given the above mentioned finding of high overall likeliness of mobile phone app usage in disaster situations, the conclusion may be drawn that citizens who are not active or frequent social media users may still be very interested in using mobile phone apps designed for disaster preparedness and disaster response.

3.4. Trust and Distrust between Citizens and Authorities

The questions in this section are, again, based on the findings in the literature review of Work Package 4, as well as the results from the 2nd Stakeholder Assembly, outlining the important but often contradictory role of trust between citizens and disaster managers. Q27 to Q38 specifically seek to explore different levels of expectations towards, and trust in, different authorities/institutions; Q39 and Q40 are based on this topic (trust in different social media sources) having been raised by practitioners during the 2nd Stakeholder Assembly (Discussion group session II). Q41 and Q42, which concluded the morning session of this Citizen Summit target another topic brought up during the 2nd Stakeholder Assembly (Discussion group session III), exploring trust further and understanding it as a bi-directional relationship between citizens and disaster managers. As such, it is complementing the research regarding citizen empowerment in Work Package 7.

The results show that the strongest perceived effectiveness was assigned to the fire brigade, civil protection, and medical emergency services, whereas less than half of the participants perceived the media and the local police to be effective or very effective in providing help in case of a disaster. An almost identical picture was revealed for these authorities' respective trustworthiness in case of a disaster. This "ranking" corresponds with the actual role these actors play in the management of disasters (in Italy). However, the comparatively low percentage for voluntary aid institutions (54% and 53% correspondingly) is surprising given the important role many of them are playing in Italian emergency and disaster management.

Table 7

Perceived effectiveness and trustworthiness of different authorities in disaster situations

	Trust or trust a lot	Effective or very effective
Q27/28: Civil Protection	75%	70%
Q29/30: Local Police	19%	17%
Q31/32: Medical Emergency Services	69%	68%
Q33/34: Fire Brigade	96%	97%
Q35/36: Voluntary Aid Institutions	54%	53%
Q37/38: The Media	28%	28%

Q27/29/31/33/35/37: When you think of [respective authority],how effective in providing help do you think they are in case of a disaster? (1=not effective at all, 2=not effective, 3=neither ineffective nor effective, 4=effective, 5=very effective, 6=I'm not sure).
Q28/30/32/34/36/38: When you think of [respective authority], how trustworthy do you think they are? (1=not trustworthy at all, 2= not trustworthy, 3=neither untrustworthy nor trustworthy, 4=trustworthy, 5=very trustworthy, 6=I'm not sure).

Figure 8
Perceived trustworthiness in disasters

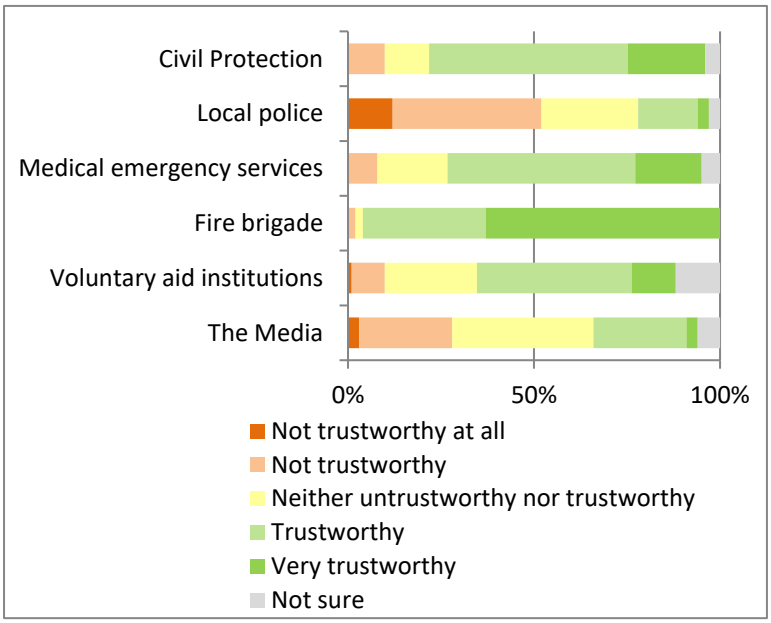
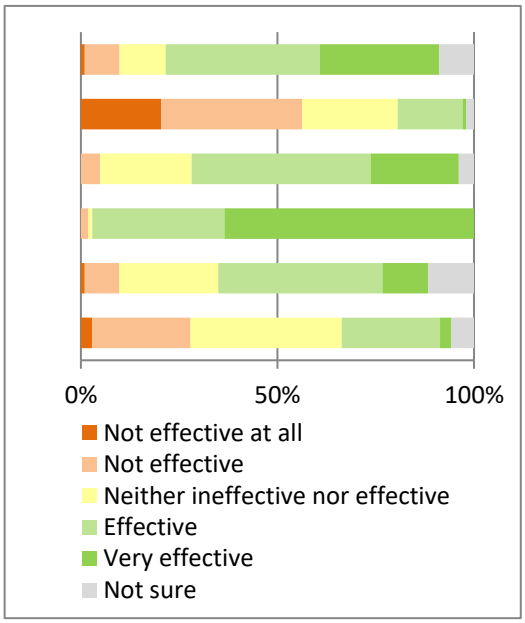


Figure 9
Perceived effectiveness in disasters



Note: There are no statistically significant differences between female and male responses, or between age groups, with the exception of a significantly higher trust in the local police by the 45-54 year olds, and significantly lower perceptions of effectiveness and trust in medical emergency services by the 24-43 year olds.

There are, generally, strong relationships[14] between the perceived effectiveness and the felt trustworthiness of a specific authority, i.e. if participating citizens perceived, e.g., the effectiveness of the fire brigade to be high, they would also indicate a high level of trust in the fire brigade. Likewise,

[14]Between *R*=.837 for the fire brigade and *R*=.669 for the media.

a lower level of perceived effectiveness of the local police is strongly related to a lower level of trust in the local police. However, there are no strong links regarding trust and/or perceived effectiveness between the different authorities.

Interestingly, the generally low trust in the media in disaster situations as shown above (see Table 7) cannot simply be transferred to trust in social media messages. Here, the data reveal a considerable difference between the respective information source: Whereas 64% of the participants indicated that they trust (or trust a lot) messages from local authorities (and only 5% distrust or distrust a lot), only 22% answered that they trust (or trust a lot) messages from other private social media users, without any significant difference in the responses between gender and age groups.

Table 8
Trust and distrust in different social media sources

	Distrust a lot	Distrust	Neither distrust nor trust	Trust	Trust a lot	Not sure	I don't use social media	Mean	STD
Q39: Local authorities	2%	3%	24%	51%	13%	4%	3%	3.76	0.812
Q40: Private users of social media	7%	16%	46%	19%	3%	6%	4%	2.95	0.908

_____
Q39: Imagine there is a high risk that a disaster will occur in the area where you live. If you use social media, how much would you trust, or mistrust, messages from local authorities?
Q40: Imagine there is a high risk that a disaster will occur in the area where you live. If you use social media, how much would you trust, or mistrust, messages from private users of social media?

Finally, and as outlined by disaster management practitioners during the second Stakeholder Assembly, citizens' trust in authorities may also be influenced by their belief to what extent local authorities and/or emergency services trust citizens in disaster preparedness and disaster response. The results in Table 9 below show that just over one out of eight participants believe that local authorities trust citizens or trust citizens a lot that they are appropriately prepared in case of a disaster, and as few (13%) believe that citizens are trusted to be able to respond appropriately, whereas almost half of the participants (45%) believed that citizens are distrusted, or distrusted a lot, to be able to respond appropriately in a disaster situation. However, no significant correlations could be found between these results and the participants' responses regarding *their* trust in the different authorities, contradicting any hypotheses that citizens may distrust, or trust authorities, because they feel that they themselves are distrusted or trusted.

Table 9

Citizens' beliefs of authorities trusting / distrusting citizens

Beliefs that local authorities / emergency services trust citizens that they are....	Distrust a lot	Distrust	Neither distrust nor trust	Trust	Trust a lot	Not sure	Mean	STD
Q41: appropriately prepared in case of a disaster	7%	36%	34%	11%	2%	11%	2.61	0.870
Q42: able to respond appropriately in a disaster situation	8%	37%	31%	12%	1%	11%	2.57	0.877

_____

Q41: How much do you believe that the local authorities/emergency services trust YOU, as a citizen, that you are appropriately prepared for a disaster?

Q42: How much do you believe that the local authorities/emergency services trust YOU, as a citizen, that you are able to respond appropriately in a disaster situation?

Note: No statistically significant differences could be found between male and female responses, or between age groups.

4. Qualitative Data Analysis

Topics for the focus group discussions held in the afternoon of this forth Citizen Summit were chosen based on the results from the Stakeholder Assembly 2 held in Rome in February 2017[15],as well as from other Work Package Deliverables produced since the first two Citizen Summits held in 2016. At the same time, the discussion guidelines were aiming to complement the quantitative data collected via the audience response system during the morning session. Accordingly, after a "warm-up" up phase, where the participants were asked to talk about both their individual disaster experiences and collective memories of disasters, the discussions focused on two main themes: trust in different entities (authorities/institutions, non-professional leaders, social media), and disaster preparedness measures in practice.

4.1. Trust

4.1.1. Trust in Authorities

The aim, here, was not only to find out which different authorities or institutions citizens trust, or distrust in disaster situations, but also what the reasons for these feelings are, and what cultural factors may play a role in the development, sustainability, lack, or loss of trust. Participants were encouraged to talk about actual personal experiences rather than hypothetical situations and, in line with the concept of exploratory qualitative research, they were given the space to develop their own ideas rather than discussing about pre-defined examples.

Generally, participants' descriptions of positive experiences with authorities outweighed by far the recount of negative experiences. These positive experiences mostly referred to Civil Protection and the fire brigade, and in these descriptions the participants frequently drew a connection between their trust and the respective unit's speed of response, perceiving a speedy intervention as a sign for qualification and preparedness:

> *"I called the fire brigade, they were on the way back from a fire, and on their way back they passed by my house. Their intervention [removal of a pole that had fallen on the participant's car] was fast and effective, and they didn't want anything back. This is a sense of trust and readiness"* (G8-P5[16]).

> *"I was in Sardinia, it was a beautiful day, but around 5pm a hailstorm arrived […] it damaged all the roofs of the houses in the village, cars, windscreens, animals died […] in the same night the fire fighters intervened to verify which roofs were ok and which weren't. I trust them because they arrived immediately"* (G9-P8).

[15]Which, in turn, was based on the results from the first round of public CARISMAND events (i.e. Stakeholder Assembly 1, as well as Citizen Summits 1 and 2).

[16]Group 8 (in total, there were 10 discussion groups, thereof groups number 1 and 2 with participants aged 18-24 years, groups 3-6 with participants aged 25-44, and groups 7-10 with participants aged 45+. In each group were 9-11 participants, each was given a number rather than keeping names in order to ensure anonymity.

> *"I experienced a patrol by fire fighters a couple of days after the earthquake. We had a lot of cracks in the wall and we called them. They arrived on time and were very precise. This reassured us and instilled trust"* (G2-P9).

Those participants who had no disaster experience themselves explained how their draw their trust from positive experiences in smaller-scale or personal emergencies, e.g. life-threatening health incidents, or mass accidents on motorways: *"When I was a child, I was stuck on the motorway due to a severe accident. The Civil Protection arrived and brought us bottled water. It was summertime, and we had been there for six hours"* (G4-P2). Additionally, some participants outlined the emotional help received:

> *"My partner and I were in Amatrice[17] the day after the earthquake […] to pick up her grandparents and the daughter of some friends. Civil Protection made us feel welcome and helped us, managing the panic and helping us to find the child we were looking for. They solved a dangerous and fearful situation. I felt like being in the movie 'Titanic', with many people looking for help, feeling lost, looking for relatives and friends, but also seeking for random help. It was a strong and deep experience"* (G6-P2).

> *"During the L'Aquila earthquake [April 2000], the mother of my ex-boss was trapped under the debris her neighbour's house. She was saved by fire fighters, as she was completely buried […] Three officers worked as if they were twenty of them, and they helped her physically and emotionally"* (G6-P8).

Other participants outlined the "visibility" of some authorities – *"we see how they work. In case of natural disasters, everybody sees Civil Protection, the fire brigade, soldiers"* (G1-P1) – and positive media coverage appeared not only to incur trust but, in some cases, also instil national pride: *"From what I see in the internet, TV, newspapers, etc., I think that especially fire fighters and Civil Protection are two Italian realities that are totally able to manage these events. I don't know if in other countries they have the Civil Protection – I think it's an Italian peculiarity – and I think they are efficient"* (G9-P7).

On the other hand, negative experiences mostly related to the police, both Carabinieri and state police, often perceiving their response as delayed, e.g. in case of reported home burglaries – *"they arrived more than 20 minutes later"* (G2-P5) – or ineffective*:*

> *"I had to do with the Carabinieri because they intervened during [street] fights, but I saw they could not do anything […] I saw them as a useless corps"* (G1-P3).

> "*In Modena[18], there was both police and Carabinieri, but they were not organised at all. I felt they were simply wandering around the city to see if anyone needed any help, but without a real support and management organisation"* (G6-P7).

Generally, the local police was perceived as unprepared, and holding a police role that was seen to be more related to regulating than to helping the general public: *"I think they are trained for inspections, I do not think they are trained for [disaster] management […] I do not trust the police because they have more administrative roles, they are more trained to fine people than to deal with real emergencies"* (G2-P7). However, whereas many participants referred in this context to the Italian

[17] Amatrice was struck by violent earthquakes between August and October of 2016.
[18] Related to the 2012 Emilia earthquakes.

traffic police, some of them also self-critically (dis-)qualified such attitude as partisan, which was particularly prevalent in the discussion groups with the youngest participants: *"I think it is a stereotype: Policemen and Carabinieri are those that stop you in the streets and can fine you"* (G1-P4).

Others expressed in this context that, despite their feelings of distrust in the police, they feel a form of citizen duty:

> *"In my opinion there is a sort of social contract, I mean authorities are authorities and we need to trust them, otherwise if they tell me to do something I will not do it. I think that we need to respect authorities in any case. However, I have to say that when you asked the question I thought 'we cannot trust the police too much'. Even though I try to"* (G2-P6).

Here, very interestingly, the participant distinguishes between (dis-)trust as the prevalent feeling and trust as normative behaviour, and describes her difficulties to bring those two in line with each other. It also coincides with the statements of other participants who express that *"we cannot tear institutions down […] we must respect institutions. I feel I trust them in an emergency"* (G3-P5). A number of participants, therefore, described that they do not trust the *"system"* (G3-P1), but *"when emergencies occur what matters more is the help offered by the single operator, more than the institution itself"* (G3-P5); *"I do not trust institutions themselves. I only trust the people around me, the community, when an emergency occurs"* (G3-P2). As a strategy, some participants described how they had turned to online communities:

> *"Yes, we have a Facebook group in our neighbourhood. Actually, we have two: One is in [place where the participant lives at the moment], and the other one is for the building where I lived before and I never got out of that group. The group alert works perfectly, because as soon as someone smells or hears anything we are all alerted and ready to take action"* (G5-P2).

Whilst the setup of such "virtual neighbourhood watch" groups is widespread in some European countries, this statement points into a further direction, i.e. the effect a network of such alert groups may have, or could be made use of, when citizens move their homes but stay in touch online with their previous local communities.

4.1.2. Trust in Non-professional Leaders

Beyond citizens' trust, or distrust, in different authorities and institutions that are active in disaster prevention, preparedness, response, and recovery, another aim during this Citizen Summit was to find out who are the non-professional ("cultural") leaders citizens trust in a disaster situation, and what makes them trust such persons. Again, this discussion topic was set up to allow participants to elaborate their own ideas, e.g., based on pre-existing trust relationships, previous experiences in everyday situations, assumed organisational skills, or assumed "natural" or professional authority in other areas. It is expanding upon the results of the second Stakeholder Assembly which, in turn, were developed upon the participants' ideas revealed during the first two Citizen Summits and, as such, contributes further to the cyclical character of the CARISMAND events.

During the discussions in this third Citizen Summit, the first reaction of participants in most groups was to refer to their neighbours or their local communities, and to personal characteristics such as selflessness, self-confidence, charisma, the ability to keep calm, and an "instinct" to help. Regarding specific groups of people, they referred to "ex-professionals", e.g. retired soldiers, nurses or teachers, the latter being mentioned most often as they were seen as trained leaders.

Another group identified as trustworthy leaders were active sports people, because *"they are used to stressing their limits and, in case they don't have [physical] limits, the limit is a mental limit and they are able to go beyond it"* (G7-P3). This group was already identified in the last Stakeholder Assembly, outlining there the capacity of active sports people for team work. However, the statement here elaborates on another personal quality, which was ascribed in particular to people who engage in individual fitness – perseverance – and points at the opportunity to, e.g., cooperate with gyms for the recruitment of volunteers and motivators in disaster preparedness activities.

Furthermore, a number of participants mentioned stewards in sports stadiums – not only because they are, or should be, trained in safety procedures, but also because *"it's an appearance matter"* (G4-P2), referring thus to the importance of uniforms as a traditional symbol for organised help. Some participants additionally pointed at hotel and building managers – *"I remember the behaviour of the hotel manager in Los Angeles [during the 1992 earthquake], he managed the situation very well"* (G9-P6) – who were seen to combine managerial qualities with building/construction knowledge.

Finally, many participants defaulted to "elderly people" in general as both commanding respect and instilling trust. Whilst such age-related roles seem difficult, or even impossible, to operationalise for disaster preparedness or response, one participant described her experience at the University of the Third Age: *"I was a student again attending university, and they trained us how to use the defibrillator, because it seems that in Rome there are many buildings where the owners decided to purchase a defibrillator, but then they don't know how to use it"* (G7-P1). Again, active pensioners have been identified during the previous Stakeholder Assembly in Rome, as well as by participants of the Malta Citizen Summit, but this statement points at the specific potential of Universities of the Third Age as "sources" of such active pensioners, who may have both the background and the time available to get engaged in disaster preparedness.

4.1.3. Trust in Social Media

This discussion topic built upon the quantitative set of questions asked in the morning session, i.e. why social media messages originated by one entity may be trusted, or distrusted, more than those originated by others, with a specific emphasis on potential differences between messages from public authorities and messages from other private social media users.

Here, participants in all groups described how they used Facebook or Twitter to receive, or exchange, information with friends and family members during earthquakes in Italy and/or recent terrorist attacks in the UK[19] in *"real-time"* (G3-P9). In particular, some older participants, whilst finding

[19]Participants referred in particular to the Westminster Bridge attack in March 2017 which left 6 dead and 50 people injured, and to the suicide bombing at the Manchester Arena which left 22 people dead and 59 injured, many amongst them children and young adults.

websites of public news media to be the most trustworthy, showed also the strongest positive attitude towards social media*:*

> *"I had friends in the region quite close to Amatrice, who were staying in their summer houses, and we tried to gather news and participate in the situation. I then realised that social media today are real"* (G8-P11).
>
> *"Social media are very useful and very powerful tools"* (G7-P5).
>
> *"I would like to underline the fact that social media are very effective. I remember that when there was the fire in Fiumicino, at the terminal[20], various Facebook groups spread the message to stay at home rather than crowding the streets […] Why this information came from private groups and not from public authorities? What we see on TV is not institutional, it's journalism, it's communication filtered by journalists […] If there is a disaster, the information must be institutional"* (G10-P5).

The latter statement demonstrates a perception prevalent with many other participants where social media, though not substituting the need of timely information from public authorities, are seen to at least provide somewhat unfiltered information, and may be in some cases the only source of information at all:

> *"Users' updates and status updates, even though they are uncertified sources, they can be useful in disasters, for example with regard to villages being cut off by snow. Sometimes the official sources from there do not arrive. It doesn't matter if reliable or not, sometimes these are the real source of information"* (G4-P9).

Similarly, a number of participants outlined that the Facebook safe message feature may be misused but, still, *"it is better that it exists rather than it does not"* (G2-P5).Generally, most critical voices came from the youngest discussion groups, pointing at the perceived high frequency of fake news at Facebook but, at the same time, describing their strategies to verify information received via social media*:*

> *"When the earthquake happened I went on Twitter, to check trends. Can Twitter be trusted? I think so because you filter the news, you see if people talk about the same topic"* (G1-Alessia); *"Now you also have the live streaming on Instagram and Facebook. You can see what happened before and after a certain fact"* (G1-P1).

Interesting, in this context, is the role of pictures and videos which, rather than mere text, was seen to provide authentic information: *"On thing is the image and one thing are the comments added […] these images are real"* (G8-P5). Additionally, the speed of information provided via social media – *"On Facebook every two seconds you were updated: Montesacro[21], shake just happened … Flaminio, shake right at this moment … all areas of Rome communicated what was happening"* (G9-P4) – creating a sense of authenticity and, thus, being *"more truthful"* (G9-P7).

Rather than trust as a motivator for social media usage, some participants perceived it as their civic duty to use the (online) tools available:

[20]In May 2015, a fire at Rome-Fiumicino airport, caused by a short circuit, severely damaged some areas in the airport's international Terminal 3.

[21] Montesacro and Flaminio are two neighborhoods of Rome.

> *"We can improve reactivity in case of a disaster. We need to take advantage of new possible ways of communication. There are no barriers anymore. We cannot only limit ourselves to a call saying that there is a fire, for instance. It is a personal responsibility but we need to use these things. It would also be motivating"* (G1-P3).

Others described how they first used social media or mobile phone apps out of curiosity, but the information they gathered had a lasting effect: *"I downloaded an app "Earthquakes in Italy"[22], as I wanted to investigate how many earthquake affect our country. At 9 o'clock in the morning there are sixty earthquakes nobody is aware of. To me, this helped me raising my awareness toward the issue"* (G3-P5). Again others outlined the possibility of interaction with authorities: *"I find the interaction with the institutions very interesting. They usually reply to me. This increases trust towards the institutions I'm talking to"* (G4-P6).

In particular the latter statement shows how shortcomings in the interaction between citizens and authorities, which are perceived to occur in the "offline world", are seen to be less prevalent when communicating online.

4.2. Disaster Preparedness in Practice

This second main discussion theme was chosen to elaborate upon the related quantitative questions asked in the morning, i.e. how much the participants feel informed about preparedness measures, how much they are interested in preparing themselves and, in particular, what different activities they would be willing to participate in to improve their disaster preparedness.

4.2.1. Feeling Informed or Trained

Regarding their feelings of being informed and/or trained, most participants across all groups felt, generally, a substantial lack of knowledge, although at least some admitted that this lack may be caused by inertia at their end:

> *"I have to be honest, I do not know. I work in a six-floor building, and I do not know where the fire stairs are. It is my fault but I do not know"* (G2-Alessandro). The majority, however, claimed that *"there is no basic instruction or training for citizens […] we have no clue what to do"* (G5-P7).

Some of the younger participants referred to *"those things learnt at school"* (G2-P2), stating that there were school memories of emergency plans and fire drills, but also that *"teachers were not interested in doing emergency drills"* (G4-P9). At least half of those younger participants with a tertiary education additionally mentioned that there was never offered any emergency training during their time at university. More often, participants talked about the compulsory safety-at-work courses they were taking, which they described as very useful, though rather basic.

[22]Free mobile phone app providing real-time notification of earthquakes with a magnitude of 3.0 or higher. It provides information about the latest earthquake activity in Italy and also the latest major earthquakes worldwide. Basic data and the location of earthquakes are shown in list form and on a map. Data sources are the Istituto Nazionale di Geofisica e Vulcanologia in Italy, the U.S. Geological Survey, and the Euro-Med Seismological Centre (EMSC).

Regarding information exchange within families, several older participants who had raised children themselves expressed their opinion that parents should use any opportunity to build upon any information their children may be exposed to, be it at school or, e.g., when watching the news:

> *"Perhaps when they see the news [about an earthquake], the father or the mother should comment on it in an educative way, for example, saying 'if there is an earthquake, you should go under a beam'"* (G9-P3).

> *"If the child comes back home and his mother asks what they did at school and the son answers 'how to behave in case of an earthquake or a flood', the mother can intervene and extend upon the topic"* (G9-P4).

Whereas such strategy in children's education is neither surprising nor entirely new, it is contrasting with the findings in previous CARISMAND Citizen Summits, where parents were seen to learn from their children rather than being educators themselves. This reference to parents as an authority in disaster-related knowledge was also confirmed by younger participants, one of them explaining that *"with regard to earthquakes, my mum is my main source of information"* (G4-P4).Others related to their grandparents' experience and resilience during the Second World War.

Regarding the different ways information may be provided/received, a number of participants referred to the, in their opinion most "simple", form of awareness improvement measure - paper brochures: *"Municipalities should hand out leaflets"* (G5-P4); *"they could send letter from the Lazio region authority or whatever. Clearly a letter is a bit of an old system, but you are sure it will reach everyone, every house. This is one way to inform"* (G2-P11). Others refer to a range of sources:

> *"If would be useful to create awareness, be it through the school, TV, information brochures about ways to save lives […] a lot of people get hurt, they die running down the staircase […] If there could be a way that you have it written down and you post it on the fridge, it would a way to save a lot of lives"* (G8-P3).

These quotes show that, interestingly, despite their aforementioned enthusiasm for internet and social media use in disasters, participants, here, default to paper-based information. It may be thus concluded that whilst active information-gathering during a disaster is part of an online culture, gathering information for disaster preparedness is not but requires, at least partially, more traditional sources.

4.2.2. Willingness to Improve

As the last topic in the afternoon session of this Citizen Summit, participants were shown visual cues – pictures of different disaster preparedness activities – and asked to discuss why, why not, and under which specific conditions they would be interested in participating. The three activities presented were:

(a) a free emergency preparedness and response course which runs over several weeks at hours when the participant has time, for example, 2 hours per week over a period of 6 weeks;
(b) a large-scale disaster scenario set up in the participant's area over a day on a weekend, for example an explosion in a metro station; and

(c) a mobile phone app that is specifically designed to provide information about disasters or threats in the area where the participant lives; the participantwould be asked to test this app for a period of 3 months and fill out an anonymous feedback questionnaire after that period.

Participation in Courses

At least half of the participants in most groups[23]expressed their interest in attending such a course. Only a minority explicitly rejected the idea, mostly indicating vaguely a lack of time as the reason.

Interestingly, in particular participants in G1 and G2, i.e. the youngest groups, were not only very keen, but even felt that attending such courses should be mandatory: *"It should be a law requirement and it should be done every two to three months"* (G1-P9). Some of these participants, here, also drew a direct link to citizen duties: *"It should be mandatory, because one of our Constitutional principles is about solidarity amongst citizens"* (G1-P1). Understood as such, making disaster preparedness and emergency response courses available to the general public would then, on the other hand, be a state's obligation in order to allow citizens to fulfil their duties.

Beyond citizen duties, other participants felt that the participation in these courses would be *"a social gathering moment"* (G4-P7), and that attendees would be *"part of a larger system"* (G10-P5), outlining thus the effect of social cohesion a frequent participation in such courses may have.

Generally, the majority of participants indicated an increased knowledge as the main motivator, with some of them referring, here, not only to the acquisition of physical skills in disaster preparedness and response, but also to learning about more general reactions in disaster situations:

> *"I would do it, and it would be very good to have it done periodically, in order to avoid confusion and damages while waiting for professional help*" (G5-P8).
>
> *"These courses may help to learn about how to manage panic"* (G3-P8).
>
> *"Anything can be useful in the end. Maybe these little things that may help you to overcome the panic, to be more alert, lucid"* (G10-P10).

These statements demonstrate that at least some of the participants understand disaster preparedness courses not as learning, or refreshing, skills in standard emergency first aid, but as opportunities to learn about emotional responses and self-control, which can be seen as their, intentionally "passive", contribution to professional disaster management.

Participation in Simulation Exercises

When presented the possibility of participating in a one-day disaster scenario exercise, most participants in all groups[24] showed a strong interest, or at least a certain "why-not" attitude: *"In the end it's only one day"* (G9-P7). When discussing this type of activity, the majority perceived it as a more realistic, "tangible" experience; only one participant felt that it would rather be *"like a film set"* (G4-P1) and, therefore, not providing a "real" experience.

[23]With the exception of G4 and G6 where only about a third of the participants expressed their explicit interest.
[24]With the exception of G6 where the moderator did not probe for explicit statements.

Another reason for rejecting the idea was the perception that such exercise would be more dedicated to professionals, and participating citizens would be reduced to passive roles: *"I would be a test subject made available to professionals; in a course I would learn more, because I would be the leading actor"* (G4-P3). Four participants considered themselves to be too anxious to participate; but none indicated a lack of time as the reason for not participating.

Amongst those who were interested in participating in the scenario, three main themes emerged during the discussions: a strong interest in understanding the processes involved; learning about emotional response; and evolving socialities.

Regarding the understanding of processes involved in managing a disaster situation, participants in all age groups outlined that such experience and gained knowledge *"would be useful to clear up misbeliefs related to emergency response, rather than learning basics"* (G4-P5). Another important factor perceived was learning how *"not to hinder other people providing aid"* (G9-P9)*, "because at the end we risk to hinder the rescuers"* (G9-P5); *"I would not say that a person will be able to act as they are supposed to, but at least they will not impede operations like people who do not know anything at all"* (G1-P1).

Regarding emotional responses, a number of participants perceived such scenario exercise as a *"psychological challenge"* (G5-P2), which may help to recognise one's own strengths and limits: *"It's useful also for ourselves, not only for other people"* (G9-P7). Despite being a simulation, they recognised it as *"a way to get closer, […] it's a small step, but it's a way to get sensitised. After that, you may also look spontaneously for more information"* (G1-P8). Here, participation was also seen as a potential motivator for becoming more engaged in preparedness: *"You sensitise people to learn more about disasters"* (G1-P1).

Finally, the participation in a larger-scale disaster simulation exercise was perceived as promoting social cohesion, because *"it is done with other people and all the community. This means that the community will be ready in case of an emergency"* (G2-P9) or, beyond merely increasing a sense of existing community, *"it creates a community, it helps us come together"* (G7-P6).

Testing/using Apps

Almost all participants, irrespective of their age, showed a strong interest in testing and using a mobile phone app specifically designed for disasters; only one participant explicitly rejected the idea to download and test such app. Generally, a "disaster app" was seen to be a convenient tool –*"It's easy to use"* (G4-P2), *"easy to access"* (G7-P3), *"it is always at hand"* (G6-P8) – and it was also perceived to be safer that social media: *"I trust apps more than social media. Social media can be abused"* (G1-P7).

Some younger participants though expressed their concern that *"if we rely too much on apps or on technology, people aged seventy from Amatrice wouldn't do anything"* (G3-P1) but, more often, this stereotype was rejected by both younger and older participants: *"I have a mobile which is new but I don't use apps. But with this option I would start to use them, because I think it's very useful"* (G9-P9).

An app was not only perceived to be an information source, but some participants also expressed their opinion that *"it makes you keep things under control"* (G6-P2) which may, in a disaster situation,

have a positive psychological effect on victims. Additionally, a number of participants referred to such app as a "cultural tool":

> *"I feel quite confident, because Italians have always demonstrated altruism, we always help each other. This [app] could create more community. I would see it as something socially useful"* (G1-P3).
>
> *"It's important […] It puts you into connection with other people in the area, even if there isn't that great a risk"* (G8-P10).
>
> *"This is part of the civic education that we don't have, because with awareness, education and culture we can face or at least limit the damage from these events"* (G10-P5).

Here, the participants not only perceived the possible function of technology-based sociality, but they also imagined its contribution to the development of a "culture of preparedness" through common interest in the use of a new technology.

Furthermore, the discussions regarding this last topic circulated around the desired features of such a mobile phone app. Firstly, the majority of participants felt that it should be authored and led by a public authority. Some named in this context Civil Protection, others believed that *"it should be developed by a supra-national authority, for example, the European Union"* (G3-P5), In any case, they outlined that *"it must be institutional"* (G6-P2) and that *"we need a single official app"* (G1-P3), rather than a myriad of private small-scale initiatives.

Another desired feature was the possibility to allow authority-to-citizen, citizen-to-authority, and citizen-to-citizen communication. Regarding the first (authority-to-citizen), it should not only make information available to citizens, but also be able to send push-messages: *"Perhaps one that sends me notifications like 'Do you remember First Aid? There is a 2-hour workshop about this'. I would like something interactive"* (G1-P3). Then, regarding the second (citizen-to-authority), information submitted via an app rather than via social media was expected to be taken more serious by the authorities which, in turn, was seen to be encouraging: *"When sending something through Facebook or some other social media, my request may not be taken into consideration; on the contrary, I would be more encouraged to provide information via an app"* (G4-P6). Regarding the third (citizen-to-citizen), several participants described how they would use it to warn others: *"For example, there is a very strong thunderstorm, I arrive and see an underpass that is flooded, so I communicate this saying 'pay attention, in this road there is flooding', so people in that area can avoid to take that underpass"* (G9-P8).

Most participants also expressed their opinion that in the design of such app, there should be a focus on preparedness and prevention which was seen to be *"more important than an app that helps facing an event. I prefer to prevent things"* (G6-P10). Possible functions desired were ranging from information about areas generally at risk and the anticipation of events to guidance for dealing with physical signs of risk, e.g. building cracks.

Finally, the majority of participants agreed that such app should be pre-installed when purchasing a new phone: *"I have already downloaded what we saw this morning[25] […] In my opinion these apps*

[25]In the morning session of this CARISMAND Citizen Summit, a presentation about social media use in disaster management pointed amongst others at the "LastQuake" app of the Euro-Mediterranean Seismological Centre (EMSC).

should be installed in the moment when you buy a mobile phone, this shouldn't be delegated to the single individual" (G10-P4).

5.Summary & Conclusions

As in all previous Citizen Summits, the quantitative data revealed that most participants of the Italy Citizen Summit feel they have a strong lack of knowledge about what to do in case of a disaster. This result reflects the lack of knowledge expressed by most participants in the discussion groups, who felt that the last time they received any information of practical training was either at school or at safety-at-work courses, describing the latter as useful, but rather basic. Their strong desire for access to information is consistent with the results from the quantitative study which found that participants indicated a considerable interest in information about disaster preparedness: More than four out of five participants would like to receive at least once per year information about how to prepare themselves and their family and/or friends for a disaster. The qualitative data revealed, here, that despite the participants' likeliness to use social media in a disaster situation they mostly referred to paper-based information. Accordingly, it may be concluded that whilst active information-gathering during a disaster is already part of internet culture, gathering information for disaster preparedness is not but still requires, at least partially, more traditional sources.

In addition to receiving information at least once per year, four out of five respondents would like to participate at least every one to two years in training activities, e.g. emergency drills or workshops, that would help improving their and their family's and/or friends' safety in case of a disaster. Again, this strong interest documented in the quantitative data coincides with the qualitative data: During the discussion groups, at least half of the participants expressed their willingness to participate in free emergency preparedness and response courses, most participants were very interested in disaster simulation exercises, and almost all were happy to test and use mobile phone apps specifically designed to provide information about disasters or threats in the area where they live. All of these activities were seen to promote social cohesion, strengthening solidarity between the participating citizens, and creating a sense of community **before** a disaster occurs. They were also perceived as an opportunity to learn about emotional responses, self-control, and the general processes in disaster management, aiming to understand in which situation a citizen's active contribution is helpful, and when to better stand back and contribute in a more "passive" manner. As such, the participants in this Italian Citizen Summit show a pro-active aptitude towards empowerment, confirming the findings of CARISMAND WP7 on this issue.

Regarding trust, or distrust, in different authorities, the quantitative data revealed generally strong relationships between a perceived effectiveness and the felt trustworthiness of the respective authority, with citizens perceiving the effectiveness and trustworthiness of the fire brigades, Civil Protection and the medical emergency services as highest, and the effectiveness and trustworthiness of the local police and the media as lowest. Additionally, the qualitative data suggest that the participants' strong trust in Civil Protection and the fire brigades was mostly related to personal experiences of the respective unit's speed of response, perceiving a speedy intervention as a sign for professional qualification and preparedness. In this context, the "visibility" of some authorities and positive media coverage not only engendered trust but also instilled strong identification and national pride. On the other hand, distrust in the local police was often based on the perception that "policing" was more related to administration and regulation rather than helping the general public. However, the quantitative results contradicted any hypotheses that citizens may distrust, or trust, any authorities because they feel that they themselves are distrusted or trusted. As a form of self-

help, some participants described how they had turned to virtual neighbourhood alert groups, and how these groups become increasingly intertwined due to people frequently moving houses but staying in touch with their previous community, developing thus effective alert networks.

As other informal ("cultural") leaders, participants pointed in particular at sports people who engage in individual fitness and, thus, were ascribed the leadership quality of perseverance, suggesting opportunities for cooperation with gyms for the recruitment of volunteers and motivators in disaster preparedness activities[26].Other groups identified were stewards in sports stadiums (as being trained in safety procedures and wearing uniforms, which are a visual signal for organised help), hotel/property managers(who were seen to combine managerial qualities with building/construction knowledge), and "elderly people" in general as both commanding respect and instilling trust. Here, participants in the discussion groups pointed specifically at Universities of the Third Age as "sources" of active pensioners who may have both the background and the time to get engaged in disaster preparedness to become qualified informal leaders.

In relation to behavioural intentions in a disaster situation, the quantitative data showed that a large proportion of participants are likely or very likely to use both mobile phone apps and social media, with the likeliness of apps usage to submit information to authorities in disaster situations being higher than the likeliness of social media use for that purpose. This was confirmed in the group discussions, where participants expressed their opinion that shortcomings in the interaction between citizens and authorities, which are perceived to occur when communicating via social media, are less prevalent when communicating via a dedicated "disaster app".

The quantitative results also point at groups of citizens, who are not active or frequent social media users but may still be interested in using mobile phone apps. This was, again, confirmed by the qualitative data which revealed that in particularly the older participants showed a strong positive response towards using and testing a "disaster app", contradicting thus the cultural stereotype of older people being generally more technology-averse. Generally, such apps were not only ascribed the possible function of technology-based sociality amongst citizens, but they were also imagined as contributing to the development of a specific "culture of preparedness", based on the common interest in new technology use.

Finally, the group discussions revealed a number of desired features of such "disaster app": Most prominently, the participants felt that it should be authored and led by a public authority – either Civil Protection or a supra-national entity on EU-level. Then, they expressed their expectations that it should allow authority-to-citizen, citizen-to-authority, and citizen-to-citizen communication, and it should include functions for both disaster response and disaster preparedness. Another important aspect was the expectation of most participants that such an app should be automatically pre-installed when purchasing a new phone, which highlights the important role they assign to it, ultimately, also in their everyday lives.

The individual topics raised in this report will be compared and synthesised with the results from the forth Citizen Summit which was held in Germany, and also complement the synthesised results from the first Citizen Summit in Romania and the second Citizen Summit held in Malta. These synthesised

[26]The inclusion of members of sports teams or associations was also explicitly pointed at by practitioners participating in the 2nd Stakeholder Assembly, but more in view of their assumed ability as "team players".

results will shape the final round of Stakeholder Assembly and Citizen Summits in 2018. Additionally, all results will

- be included in the Work Package 9 Cultural Map[27]; and
- shape a comprehensive set of recommendations to professional stakeholders, policy makers, and interested citizens, which will be included in the recommendations module of the Work Package 9 Toolkit.

[27]For inclusion of these results in the WP9 Cultural Map, this document will be fully coded following the matrix as described in Deliverable D9.1, using QDA Miner Lite software.

Appendix A

Time	Detailed Schedule & Content	Total running
[60 min.]	0. Participant registration a. Collecting consent forms b. Handing out voting keypads	
15 min.	**1. Welcome; introduction / presentation CARISMAND project**	15 min.
10 min.	**2. Presentation: Organisation & logistics** 2.1 Time schedule; breaks; refreshments 2.2 Breakout rooms/locations 2.3 Instructions how to use the voting keypads 2.4 Test questions[28] *These questions serve the purpose of live testing whether the ppvote system (central unit) is communicating properly with the distributed keypads (strength of radio signal), and to ensure that the participants know how to use their keypads. However, the questions' content also refers to the 2nd Stakeholder Assembly where several practitioners suggested that the perceived "value" of disaster management-related professions, such as police or firefighter, would be represented in a change of children's dream jobs.* 2.4.1 What was your dream job when you were a child? *(1=actor/musician/dancer, 2=astronaut/pilot, 3=doctor/nurse, 4=engineer, 5=firefighter, 6=lawyer, 7=police officer, 8=professional athlete, 9=scientist, 10=teacher, 0=Other/I don't remember)* 2.4.2 Think of a 7 or 8 year old child you know well, which may be your own or, for example, the child of a friend or family member. What does that child want to be when they grow up? *(1=actor/musician/dancer, 2=astronaut/pilot, 3=doctor/nurse, 4=engineer, 5=firefighter, 6=lawyer, 7=police officer, 8=professional athlete, 9=scientist, 10=teacher, 0=Other/I don't know)*	25 min.
15 min.[29]	**3. Question Set I: Demographics & disaster experience** *The first 5 questions in this set (Q3.1 – Q3.5) are taken directly from the recruitment questionnaire and provide some demographic and other basic participant information. Q3.6 asks for citizens' for citizens' disaster risk perception, whereas Q3.7 asks for citizens' emotions (worry/concern)[30].*	

[28]Please note that the question numbers in this schedule are not identical with those in section 3 (Quantitative Analysis) of this document, because in the schedule the numbering serves the structuring of the overall event.

[29] The time for this (as well as for each following) set of questions is generously planned, allowing for app. 2 min. per question. The presenter will read each question and all answer options out loud to the audience whilst they are shown on the presentation screen.

[30] This type of question is going to be posed to the audience a second time, i.e. at the end of question set II (Information & disaster preparedness). In order to achieve adequate internal consistency but without using exactly the same wording, these questions are based on the 5-item measure developed by Kellens et al (2011) with a Cronbach's Alpha of 0.80 for

	3.1 Gender *(1=female, 2=male, 3=choose not to say)* 3.2 Age *(numeric)* 3.3 Have you, or a close friend or family member, ever experienced a disaster? *(1=yes, 2= no, 6=I'm not sure)* 3.4 Do you feel you are living in an area that is specifically prone to disasters? *(1=yes, 2=no, 6=I'm not sure)* 3.5 Do you know of any other people in your area where you live who you think are particularly vulnerable or exposed to disasters? *(1=yes, 2=no, 6=I'm not sure)* 3.6 How high, or low, do you think is the risk that a disaster occurs in the area where you live? *(1=very low, 2=low, 3=neither low nor high, 4=high, 5=very high, 6=I'm not sure)* 3.7 How much do you agree, or disagree, with the following statement: "I am worried about disasters in the area where I live." *(1=I totally disagree, 2=I disagree, 3=I neither disagree nor agree, 4=I agree, 5=I totally agree, 6=I'm not sure)*	**40 min.**
15 min.	**4. Question Set II: Information and disaster preparedness** *This set of questions builds upon the design and results from the first two Citizen Summits in 2016, as well as results from the Work Package 4 literature review which points particularly at recent research findings regarding the correlations between perceived disaster preparedness and actual preparedness[31]. In detail, Q4.1 introduces the topic of disaster preparedness through asking for awareness of disaster-related behaviours; Q4.2, Q4.5 and Q4.6 measure citizens' disaster preparedness intentions[32], with Q4.3 and Q4.4 operationalising the results from Q4.2 for guidance to disaster managers (the need of training activities rather than the mere provision of information was specifically pointed out by participants in the 2nd Stakeholder Assembly). Q4.7 is the second measure of citizens' feelings as outlined in question set I.* 4.1 How informed do you feel by the authorities (for example Civil Protection, local police, emergency services) of what you have to do in case of a disaster? *(1=not informed at all, 2=not informed, 3=reasonably informed, 4=informed, 5=very informed, 6=I'm not sure)* 4.2 How much are you interested in information about disaster preparedness? *(1=not interested at all, 2=interested very little, 3=interested a little, 4=quite interested, 5=very interested, 6=I'm not sure)*	

the perception of flood risk, adapted to disasters in general (see Kellens, W., Zaalberg, R., Neutens, T., Vanneuville, W., & De Maeyer, P. (2011). An analysis of the public perception of flood risk on the Belgian coast. Risk analysis, 31 (7), 1055-1068).

[31] Joffe, H., Perez-Fuentes, G., Potts, H.W.W. & Rossetto, T. (2016) How to increase earthquake and home fire preparedness: the fix-it intervention. In: Natural Hazards, 84: 1943. doi:10.1007/s11069-016-2528-1.

[32] Questions are based on the 3-item measure (Cronbach's Alpha 0.86) developed by Terpstra (2011) for flood preparedness intentions. (see Terpstra, T. (2011). Emotions, trust, and perceived risk: Affective and cognitive routes to flood preparedness behavior. Risk Analysis, 31 (10), 1658-1675).

	4.3 How often would you like to receive information about how to prepare yourself and your family/friends for a disaster? *(1=never, 2=only when there is an increased disaster risk, 3=once per year, 4=once every 6 months, 5=at least once every 3 months, 6=I'm not sure)* 4.4 How often would you like to participate in training activities, for example emergency drills or workshops, that will help improving your and your family's/friends' safety in case of a disaster? *(1=never, 2=only when there is an increased disaster risk, 3=every 3-5 years, 4=every 1-2 years, 5=at least once per year, 6=I'm not sure)* 4.5 How prepared do you personally feel for a disaster in your area? *(1=not prepared at all, 2=not prepared, 3=neither prepared nor unprepared, 4=prepared, 5=well prepared, 6=I'm not sure)* 4.6 To what extent do you intend to prepare for disasters? *(1=Not prepare at all, 2=Prepare very little, 3=Prepare a bit, 4=Prepare quite a lot, 5=Prepare a lot, 6=I'm not sure)* 4.7 How much do you agree, or disagree, with the following statement: "When I think of disasters in my area, I feel concerned." *(1=I totally disagree, 2=I disagree, 3=I neither disagree nor agree, 4=I agree, 5=I totally agree, 6=I'm not sure)*	**55min.**
15 min.	*5.* **Presentation about personal preparedness measures for citizens in case of a disaster** *provided by disaster practitioner or moderator*	**1h 10min.**
15 min.	**6. Question Set III: Social media use in disasters** *This set of questions builds upon the results from the first two Citizen Summits in 2016, the 2nd Stakeholder Assembly as well as the Work Package 3 Deliverables which show the uptake of social media by citizens in disaster situations to gather information, but also the increasing usage of specifically designed "disaster apps". Q6.3 and Q6.4 intentionally differentiate between social media and mobile phone apps, because there is yet little research which explores the different possible functions expected, or desired, by citizens.* 6.1 Do you use a mobile phone? *(1=yes, 2=no)* 6.2 Do you use mobile phone apps? *(1=yes, 2=no, 3=I don't know)* 6.3 In the case of a disaster, how likely are you to use a mobile phone app that is specifically made for disaster situations to: 6.3.1 receive alerts, warnings or emergency-related information from local authorities / emergency services. 6.3.2 submit information about disaster risks or disasters to local authorities / emergency services. 6.3.3 warn/inform other app users. *(1=very unlikely, 2=unlikely, 3=neither unlikely nor likely, 4=likely, 5=very likely, 0=I'm not sure)* 6.4 Do you use the internet? *(1=yes, 2=no)* 6.5 Do you use social media? *(1=yes, 2=no, 0=I'm not sure)* 6.6 In the case of a disaster, how likely are you to use social media to: 6.6.1 inform yourself about the disaster.	

	6.6.2 submit information about disaster risks or disasters to local authorities / emergency services. 6.6.3 warn/inform other social media users *(1=very unlikely, 2=unlikely, 3=neither unlikely nor likely, 4=likely, 5=very likely, 0=I'm not sure)*	**1h 25min.**
15 min.	**7. Presentation about the use of social media and mobile phone apps in disaster management** *presented by app designer or moderator*	**1h 40min.**
20 min.	**8. Question Set IV: Trust / Distrust** *These questions, generally, are based on the findings in the literature review of Work Package 4, and the results from the 2nd Stakeholder Assembly, outlining the important but often contradictory role of trust between citizens and disaster managers. Q8.1 to Q8.6 specifically seek to explore different levels of expectations towards, and trust in, different authorities/institutions[33]; Q8.7 is based on this topic having been raised by practitioners during the 2nd Stakeholder Assembly (Discussion group session II). Q8.8 is another topic brought up during the 2nd Stakeholder Assembly (Discussion group session III) explores trust further, understanding it as a bi-directional relationship between citizens and disaster managers and intending to complement the research regarding citizen empowerment in Work Package 7.* 8.1 When you think of the **Civil Protection**… 8.1.1 How effective in providing help do you think they are in case of a disaster? *(1=not effective at all, 2=not effective, 3=neither ineffective nor effective, 4=effective, 5=very effective, 6=I'm not sure)* 8.1.2 How trustworthy do you think they are? *(1=not trustworthy at all, 2= not trustworthy, 3=neither untrustworthy nor trustworthy, 4=trustworthy, 5=very trustworthy, 6=I'm not sure)* 8.2 When you think of your **local Police**… 8.2.1 How effective in providing help do you think they are in case of a disaster? *(1=not effective at all, 2=not effective, 3=neither ineffective nor effective, 4=effective, 5=very effective, 6=I'm not sure)* 8.2.2 How trustworthy do you think they are? *(1=not trustworthy at all, 2= not trustworthy, 3=neither untrustworthy nor trustworthy, 4=trustworthy, 5=very trustworthy, 6=I'm not sure)* 8.3 When you think of the **Medical Emergency Service**… 8.3.1 How effective in providing help do you think they are in case of a disaster? *(1=not effective at all, 2=not effective, 3=neither ineffective nor effective, 4=effective, 5=very effective, 6=I'm not sure)*	

[33] See Armaş, I., Crety, R. Z. & Ionescu, R. (2017) Self-efficacy, stress, and locus of control: the psychology of earthquake risk perception in Bucharest, Romania. In: International Journal of Disaster Risk Reduction (accepted manuscript, in press). The results of this study specifically point at different components of trust.

	8.3.2 How trustworthy do you think they are? *(1=not trustworthy at all, 2= not trustworthy, 3=neither untrustworthy nor trustworthy, 4=trustworthy, 5=very trustworthy, 6=I'm not sure)* 8.4 When you think of the **Fire Brigade**… 8.4.1 How effective in providing help do you think they are in case of a disaster? *(1=not effective at all, 2=not effective, 3=neither ineffective nor effective, 4=effective, 5=very effective, 6=I'm not sure)* 8.4.2 How trustworthy do you think they are? *(1=not trustworthy at all, 2= not trustworthy, 3=neither untrustworthy nor trustworthy, 4=trustworthy, 5=very trustworthy, 6=I'm not sure)* 8.5 When you think of **Voluntary Aid Institutions**… 8.5.1 How effective in providing help do you think they are in case of a disaster? *(1=not effective at all, 2=not effective, 3=neither ineffective nor effective, 4=effective, 5=very effective, 6=I'm not sure)* 8.5.2 How trustworthy do you think they are? *(1=not trustworthy at all, 2= not trustworthy, 3=neither untrustworthy nor trustworthy, 4=trustworthy, 5=very trustworthy, 6=I'm not sure)* 8.6 When you think of the **Media**… 8.6.1 How effective in providing help do you think they are in case of a disaster? *(1=not effective at all, 2=not effective, 3=neither ineffective nor effective, 4=effective, 5=very effective, 6=I'm not sure)* 8.6.2 How trustworthy do you think they are? *(1=not trustworthy at all, 2= not trustworthy, 3=neither untrustworthy nor trustworthy, 4=trustworthy, 5=very trustworthy, 6=I'm not sure)* 8.7 Imagine there is a high risk that a disaster will occur in the area where you live. If you use social media, how much would you trust, or mistrust, messages from: 8.7.1 Local authorities 8.7.2 Private users of social media *(1=distrust a lot, 2=distrust, 3=neither distrust nor trust, 4=trust, 5=trust a lot, 6=I'm not sure, 7=I don't use social media)* 8.8 How much do you believe that the local authorities/emergency services trust YOU, as a citizen, that… 8.8.1 you are appropriately prepared for a disaster? *(1=they distrust citizens a lot, 2=they distrust citizens, 3=they neither distrust nor trust citizens, 4=they trust citizens, 5=they trust citizens a lot, 6=I'm not sure)* 8.8.2 you are able to respond appropriately in case of a disaster? *(1=they distrust citizens a lot, 2=they distrust citizens, 3=they neither distrust nor trust citizens, 4=they trust citizens, 5=they trust citizens a lot, 6=I'm not sure)*	**2h**

60 min.	**Lunch break**	**3h**
10 min.	**9. Introduction of moderators and discussion group logistics** (and guiding participants to the different breakout rooms)	**3h 10min.**
10 min.	**10. Discussion group briefing** *Welcome the participants and assign them a seat. This is mandatory, in order to obtain their informed consent and to ensure that they understand what they have agreed to do. Explain to them that the audio recording of the discussion is necessary so as not to miss any of the comments given during the discussions. Start recording the meeting and inform the participants that the recording has begun.* "Welcome and thank you for agreeing to participate in this discussion group. Your contribution is highly valued. My name is _____ and I will be chairing this group discussion. Our session will take about 90-120 minutes. Since we will be audio recording the discussion, I would kindly ask you to speak in a clear voice and one at a time; your opinions, experiences and suggestions are very important to this project, and we do not want to miss any of your comments." *At this stage, do not to provide any additional details on the content of the discussion group in order to avoid influencing and biasing the discussion! However, in case a participant asks, you can give them the general explanation that*"these discussions serve to understand how citizens feel and what they think about disasters". "As stated on the signed consent form, everything that will be recorded during this session will be used only for the purposes of this study and will be kept confidential, i.e. the recorded comments might be used in scientific publications and reports relating to this study, but only as anonymous quotes. I want you to make sure that you are comfortable enough to share your opinions with all the participants in the group. In order to facilitate this, I would like to ask everyone present to follow these ground rules: • We are interested in the opinion of each individual and we would therefore like to hear from all the people in the group. • There are no wrong or right answers. There are only different opinions. Consequently, we'd like you to respect each other's opinions. • It is important for us that only one person speaks at a time. Each opinion is important and I would kindly request that you don't speak when others are speaking, otherwise it will be difficult for us to capture all of your opinions. • I would also kindly request that you silence your mobile phones and thus provide for an uninterrupted discussion.	**3h 20min.**

	Do you have any comments or other suggestions for these ground rules? Do you have any other important general questions before we start?" […] "So, let us start with each member of the group briefly introducing themselves. Let us go around the table. Tell us, please, your name or, if you prefer, your first name or a nickname, and a few basic things about yourself, for example your age, your occupation etc. Let me start by introducing myself…"	
10 min.	**11. Discussion topic: "Warm-up"** "I would like to begin our discussion with a short "warm-up": I will read out a word and I would like you to say the first couple of things that spring to your mind when you hear the word. Let's try an example first: What is the first thing that comes to mind if I say the word "fire"? Preferably, try to think about single words or short phrases, and try to avoid lengthy descriptions. " *Read out (**one at a time**, and encourage each of the participants to give one or two words only they associate spontaneously with the respective term):* - "Responsibility" - "Credibility" - "Trust" - "Faith"	**3h 30min.**
10 min.	**12. Discussion topic: Experience of disasters** "What disasters that have occurred in the past in the area where you live can you spontaneously think of?" […] *This question does not only serve as an additional warm-up, but it should also probe what **actual disaster experience** (or memories thereof) the different participants have. Here, it is ok if participants also talk about e.g. their parents' or grandparents' memories they may have been told when they were children, as we are also interested in what **collective memories of disasters** are prevalent in the respective region.*	**3h 40min.**
25 min.	**13. Discussion topic: Trust in authorities** "We have asked you a couple of questions this morning regarding your trust in different authorities and institutions, for example Civil Protection, local police, fire brigade, medical emergency services, voluntary aid institutions etc. Now I would like to discuss this with you a bit more: Can you tell me about your personal experiences of a disaster or an emergency situation where you felt trust, or distrust, in the different authorities that were on site?" […] "What did they do to earn your trust, or distrust?" […]	

	*Please try to make the participants talk about their **actual** experiences rather than speculating about hypothetical situations. Those who claim that they have no such experience at all should be encouraged to talk about other, smaller-scale emergency situations, e.g. a car accident or a workplace accident. The aim of this question is not only to find out which different authorities or institutions citizens trust (or distrust) in disaster situations, but also what are the reasons for these feelings. Such reasons may be, e.g., previous experience with the respective authority, specific symbols (e.g. uniform, red cross), or specific behaviour that raises trust or distrust. Please let the participants speak freely and develop their own ideas; only use the abovementioned examples for probing in case they can't think themselves of any reasons why they felt trust or distrust.* "Do you think other people in your area felt the same in that situation you just described? Why / why not? What different behaviours did you observe in different people, or different groups if people?" […] *The intention of this question is to find out **whether different cultural groups trust, or distrust, differently in disaster situations**. Whilst a certain level of speculation is in this case unavoidable, please probe the participants' opinions by asking **what observed behaviours** in others make them think so.*	**4h 5 min.**
25 min.	**14. Discussion topic: Trust in non-professional leaders** "What other persons did you encounter in a disaster or emergency situation who were NOT professional disaster managers or emergency services but took up responsibility spontaneously. For example, people who helped in organising evacuation, rescuing victims, or assisting in the communication between authorities and citizens or between different groups?" […] "How did you feel about these persons? And why?" […] *Here, we are trying to find out **who are the non-professional ("natural)" leaders** citizens trust in a disaster situation, and **what makes them trust such persons**. Please let the participants elaborate their own ideas and experiences (e.g. pre-existing relationships, previous experiences in everyday situations, assumed organisational skills, assumed "natural" or professional authority in other areas). Only if participants have difficulties to think of any such person, you may give them examples, such as local council representatives, the parish priest, the imam, a local doctor, the pharmacist, a teacher, a local business owner, volunteers of local sports clubs or other associations etc.* "Do you think other people felt the same in that situation you just described? Why / why not? What different behaviours did you observe in different people, or different groups of people?" […]	

	*As in the previous set of questions, the intention, here, is to find out whether different cultural groups trust, or distrust, differently in disaster situations. In this question we are trying to **identify who are the individual "cultural leaders" people are trusting**. Again, whilst a certain level of speculation is in this case unavoidable, please probe the participants' opinions by asking what **observed behaviours** in others make them think so.*	**4h 30min.**
15 min.	**15. Discussion topic: Trust in social media** "This morning you were also asked about your trust in social media messages from different sources, in particular information provided via social media from authorities, journalists, volunteer associations or other, private social media users. Can you tell me a bit more about this? Why do you trust, or distrust, some more than others?" […] *This discussion topic is building upon the quantitative question asked in the morning. Please encourage the participants to find specific reasons why they trust, or distrust, one entity more than another, and ask them to describe specific situations where they trusted (or distrusted) social media messages.*	**4h 45min.**
15 min.	**16. Discussion topic: Disaster preparedness measures in practice** "What information do you have available, or have you ever received, about disaster preparedness measures and about what to do in case of a disaster? Can you tell me a bit what type of information this is, or was, and how useful you found it?" […] *This discussion topic is also building upon a quantitative question asked in the morning. Possible types of information could be, e.g., brochures, specific websites, posters/awareness campaigns by local authorities. Please probe not only for general perceived usefulness, but also for specific aspects, e.g. how easy the information was to understand (language use / technical terms etc.), and how appropriate they felt it was for different cultural groups.* "Earlier today you have also heard a bit about different possible measures to prepare yourself, and your family or your friends, for the case of a disaster. Imagine you have the opportunity to a. Participate in a free emergency preparedness and response course which runs over several weeks at hours when you have time, for example 2 hours per week over a period of 6 weeks. b. Participate in a large-scale disaster scenario set up in your area over a day on a weekend, for example an explosion in a metro station. c. Download a mobile phone app that is specifically designed to provide information about disasters or threats in the area where you live; you will be asked to test this app for a period of 3 months	

	and fill out an anonymous feedback questionnaire after that period. Would you take up such an opportunity, and why, or why not?" […] *For each of these three options you will have cue cards. Show these cue cards – ONE AT A TIME – and let the participants discuss freely. Please probe for the specific conditions under which they would be most interested to participate in any activity.*	**5h**
20 min.	**Coffee break** (and guiding participants back to the main meeting room)	**5h 20min.**
30 min.	**17. Final presentation: Overview of real-time results from participants' responses via the audience response system** *During the breaks and the group discussions, the participants' responses will undergo a quick analysis and be collated in a presentation which visualises the results via graphs and in short descriptive statements. Additionally, the final presentation will provide some information about the results from the first two Citizen Summits.*	**5h 50min.**
10 min.	**18. Conclusion**	**6h**

Appendix B

CARISMAND Citizens Summits
Recruitment Questionnaire

Participant name: _____

1. Gender: ❍ Female ❍ Male

2. Age: _____ years

3. Have you, or a close friend or family member, ever experienced a disaster?
   ❍ Yes ❍ No ❍ I'm not sure.

4. Do you feel you are living in an area that is specifically prone to disasters?
   ❍ Yes ❍ No ❍ I'm not sure.

5. Do you know of any other people in your area where you live who you think are particularly vulnerable or exposed to disasters?
   ❍ Yes ❍ No ❍ I'm not sure.

6. Do you work as a volunteer in a community or self-help group?
   ❍ Yes ❍ No ❍ I'm not sure.

7. Do you use social media?
   ❍ Yes ❍ No ❍ I'm not sure.

8. I am working in a profession that is related to disaster management (e.g. Emergency Services).
   ❍ Yes ❍ No ❍ I'm not sure.

Participant signature: _____ Date: _____

Appendix C

CARISMAND Citizens Summits
Consent Form for Participation in Discussion Groups

Name of participant: _____

ID-card number: _____

I hereby give consent to the audio-recording of the discussions within the working groups and I commit to keep secret and confidential any information that I may gain access to during these discussions.

I have been informed that these Working groups are part of the CARISMAND project (Culture and Risk Management in Man-made and Natural Disasters) – a collaborative project co-funded by the European Union under the Horizon2020 programme.

I agree that my opinions and ideas expressed during these Working groups will only be used for the purposes of the CARISMAND project in an anonymised form by CARISMAND project members and other researchers. All my answers will be kept in a secure way.

My participation is voluntary and I understand that I am free to withdraw at any time, without giving any reason.

I hereby declare that I understand the participation conditions and that I agree to take part in these Working Groups.

I consent that a copy of this consent form is passed on to the CARISMAND team for due diligence purposes.

Date …….

Signature …….